CLAIMS

1. Method, for a position sensor, of correcting the phase difference between firstly the relative passing of at least one first (T_1) and one second (T_2) magnetic transition of a generator element (5) generating a variable magnetic field, in front of a detection system (6) comprising at least two detection cells (6_1, 6_2), and secondly the position of at least two switching edges (Fc_1, Fc_2) of a logic electric signal delivered by the detection system, the two magnetic transitions (T_1, T_2) being separated from each other by a given width in the direction of relative movement between the generator element (5) and the detection system (6),

characterized in that it consists of:

- choosing the form of a reference logic electric signal (Sr) by determining the position of at least one first and one second variation edge (Fv_1, Fv_2),
- spacing the detection cells (6_1, 6_2) in the direction of movement by a given value so that one cell detects at least the first magnetic transition (T_1) to obtain a logic signal (S_2) with at least one switching edge (Fc_1) corresponding to the position determined for the first variation edge (Fv_1), whilst the other cell detects at least the second magnetic transition (T_2) to obtain a logic signal (S_1) with at least one switching edge (Fc_2) corresponding to the position determined for the second variation edge (Fv_2),
- and of combining the logic signals delivered by the detection cells so as to obtain a logic electric signal (S_t) corresponding to the reference electric signal (S_r).

2. Method as in claim 1, characterized in that it consists of:

- choosing the form of a reference logic electric signal (S_r) corresponding to the passing, in front of a detection system (6), by a reference generator element (5_r) having a given width smaller than the width of the generator element (5) passing in front of the detection system (6),
- and of spacing the two detection cells (6_1, 6_2), so that the logic electric signal obtained (S_t) is in phase with the passing of the reference generator element (5_r) in front of the detection system (6).

3. Method as in claim 2, characterized in that it consists of providing the generator element (5) with magnetization in opposite direction to that of the areas adjacent to said generator element.

4. Method as in claim 2, characterized in that it consists of combining the logic signals (S_1, S_2) delivered by the detection cells by taking into account those parts of the signals simultaneously having one same logic status between the switching edges (Fc_1, Fc_2) with a view to obtaining the logic electric signal (S_t) in phase with the passing of the reference generator element (5_r).

5. Method as in claim 1, characterized in that it consists of:

- choosing the form of a reference logic electric signal (S_r) corresponding to the passing of a generator element (5) in front of the detection system (6),
- and of spacing the detection cells (6_1, 6_2) so that the logic electric signal (S_t) obtained is in phase with the passing of a generator element (5).

6. Method as in claim 5, characterized in that it consists of combining the logic signals (S_1, S_2) delivered by the detection cells (6_1, 6_2) taking into account those parts of the signals simultaneously having one same logic status between the switching edges (Fc_1, Fc_2) with a view to obtaining a logical electric signal (S_t) in phase with the passing of a generator element (5).

7. Method as in claim 6, characterized in that it consists of using the logic signals (S_1, S_2) delivered by the detection cells (6_1, 6_2) with a view to determining the direction of rotation of the generator element.

8. Position sensor comprising at least one generator element (5) generating a variable magnetic field comprising a first (T_1) and a second magnetic transition (T_2), and intended to travel in front of a detection system (6) comprising at least two detection cells (6_1, 6_2) and delivering a logic signal comprising at least two switching edges (Fc_1, Fc_2) and corresponding to changes in the magnetic field generated by the element, the detection cells being linked to means for processing electric signals delivered by the detection cells,

characterized in that the detection cells (6_1 ,6_2) are spaced apart in the direction of relative movement between the generator element (5) and the detection system (6) by a given value so that one cell detects at least the first magnetic transition (T_1) to obtain a logic signal (S_2) with at least one switching edge (Fc_1) corresponding to the position determined for the first variation edge (Fv_1), whilst the other cell detects at least the second magnetic transition (T_2) to obtain a logic signal (S_1) with at least one switching edge (Fc_2)corresponding to the position determined for the second variation edge (Fv_2), and in that the processing means combine

the electric signals (S_1, S_2) of the detection cells so as to obtain a logic electric signal(S_t) corresponding to a reference electric signal (S_r).

9. Position sensor as in claim 8, characterized in that the detection cells (6_1, 6_2) are spaced by a given value so that the logic electric signal obtained (S_t) is in phase with the passing of a reference generator element (5_r) having a given width smaller than that of the generator element (5), making it possible to obtain the reference electric signal (S_r).

10. Sensor as in claim 8, characterized in that the processing means combine the logic signals (S_1, S_2) delivered by the cells taking into account those parts of the signals simultaneously having one same logic status between the switching edges (Fc_1, Fc_2) with a view to obtaining the logic electric signal (S_r) in phase with the passing of the reference generator element (5_r).

11. Position sensor as in claim 8, characterized in that the detection cells (5_1 ,5_2)are spaced by a given value so that the logic electric signal obtained (S_t) is in phase with the passing of a generator element (5).

12. Position sensor as in claim 8, characterized in that the processing means comprise means for using the logic signals (S_1, S_2) delivered by the detection cells (6_1, 6_2) with a view to determining the direction of rotation of the generator element.